



A CLINICAL STUDY OF STILL BIRTH IN HYPERTENSIVE DISORDERS OF PREGNANCY.

Gynaecology

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ABSTRACT

Hypertensive disorder in pregnancy remains an important cause of foetal mortality. It has been estimated that 10-15% of pregnancies will be complicated by hypertension. Hypertension complicating pregnancy is a major cause of preterm birth and perinatal death of the foetus. **AIMS AND OBJECTIVES** - The aim of this study was to determine the association of hypertensive disorders in pregnancy to neonatal mortality. **MATERIALS AND METHODS**- This was a hospital based observational prospective study, conducted in GAUHATI MEDICAL COLLEGE AND HOSPITAL, GUWAHATI. **RESULTS**: 240 patients were included in the study. Among all the cases, the mortality rate due to hypertensive disorders was found to be 52.1% . **CONCLUSION**: Hypertensive disorders remains an important cause of neonatal morbidity and mortality

KEYWORDS

Hypertensive disorders, still births, incidence .

INTRODUCTION:

The Stillbirth rate is defined as the total number of stillbirth per 1000 live births. It is one of the most common adverse outcomes of pregnancy. The Millennium Development Goals 4 and 5 aims to reduce neonatal deaths and improve maternal health by 2015.¹ Stillbirth have been reduced in the developed country in recent decades by identifying the risk factors and taking necessary measures.² Intrapartum stillbirth are often due to several maternal, foetal and placental factors. The *WHO's Every Newborn: An Action Plan To End Preventable Deaths* aims to reduce the stillbirth to 12 or fewer per 1000 births by 2030 in every country.³ India accounts for 22.6% of the global burden of stillbirths in 2015. Hypertension complicating pregnancy accounts for around 25.5% stillbirths. Pre-eclampsia is a multisystem disorder of the mother that affects the foetus because of utero-placental insufficiency.⁴ Pregnancies with hypertensive disorders are complicated by an increased risk of low birth weight and stillbirth.⁵ It is the most common cause of preterm birth and perinatal death of the foetus.⁵

This study was done to determine association of hypertensive disorder in pregnancy to neonatal mortality.

METHODOLOGY:

A prospective observational hospital based study, done in obstetrics and gynaecology department, GMCH, Assam from 1st june 2019 to 31st may 2020. Mothers with associated medical problems other than hypertension were excluded from the study.

Perinatal mortality included stillbirths with birth weight of 1000gms or more , or gestational age of 28weeks or more and death occurring within 7days from delivery.

Blood pressure was taken with a standard mercury sphygmomanometer using phase 1 and 5 of the korotkoff sounds. Data was collected with predesigned and pretested proforma. The proforma contain details regarding patients particulars , obstetric and medical history , pregnancy details , antenatal history , onset of labour , complications and details of stillborn.

For the purpose of data analysis ,information was extracted from the patients and records and entered into the personal computer database.

RESULT:

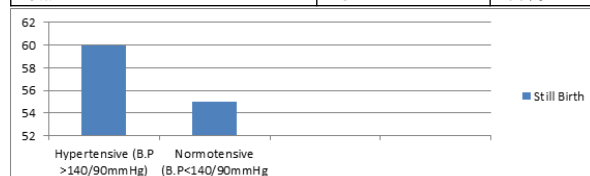
Total number of deliveries during the study period was 16513 out of which total number of stillbirth cases was 480 including both antepartum and intrapartum cases and 50%(i.e.240) of the cases were taken at random.

In the present study out of total 240 cases of still births , 115 cases i.e.

47.9% were due to some maternal cause. Out of 115 stillbirths(i.e. due to maternal complications) 60 cases i.e. 52.1% of the study population are hypertensive. But out of all the cases(i.e. 240), still births due to hypertensive mothers were 60cases which accounts for 25.1%

Table 1: Maternal Hypertension

Maternal category acc. to blood pressure(mmHg)	Stillbirth numbers	Percentage
Hypertensive(B.P>140/90mmHg)	60	52.1%
Normotensive(B.P<140/90mmHg)	55	47.9%
Total	115	100%



DISCUSSION:

Hypertensive disorder in pregnancy is considered to be a major worldwide health problem running an increased risk of perinatal morbidity and mortality. There is a variation in prevalence of hypertensive disorders of pregnancy. It is a Hospital based observational study. The main aim of the study was to determine the hypertension in pregnancy and its association with neonatal mortality. Data was collected with the help of predesigned format after taking informed consent.

The causes and risk factors were accessed in relation to maternal and fetal factors.

According to WHO criteria, the stillbirth rate in the present study is 29.068 per 1000 births.

STILL BIRTH RATE OF DIFFERENT STUDY:

Various Studies	Study period	Stillbirth rate per 1000 livebirth.
1. Bapat U et al(2007) ⁶	2002-2005	35.2
2. Bangal et al (2012) ⁷	2005-2007	13.9
3. Ajini K K et al (2017) ⁸	2014 - 2016	38.56
4. Present Study	2019-2020	29.068

Out of total 240 cases of still births , 115 cases i.e. 47.9% were due to some maternal cause. Out of 115 stillbirths(i.e. due to maternal complications) 60 cases i.e. 52.1% of the study population are hypertensive. But out of all the cases(i.e. 240)still births due to

hypertensive mothers were 60 cases which accounts for 25.1%.

Studies	Hypertensive	Normotensive
Vidhyadhar B et al	25.9%	74.1%
Rawat R et al	24%	76%
Ghumare P et al	26.4%	73.6%
Present Study	25.1%	74.9%

* According to Vidhyadhar B et al (2012)⁷ shows that out of the total stillbirths 25.9% was due to hypertensive disorder of pregnancy.

* Similar study, according to Rawat R et al (2015)⁹ and Ghumare P et al (2016)¹⁰ the cases of stillbirth occurring in pregnancy induced hypertension were 24% and 26.4% respectively.

Other studies showed that risk is mainly associated with severe chronic hypertension and in those who develop superimposed preeclampsia (Martikainen et al. 1989). According to McCowan et al. 1996, foetal deaths were more frequent in severely preeclamptic women. Sreedevi et al (2017) and Gomathy E et al (2018), a study done in Mysore and Kolar respectively found that complications in perinatal outcome such as low birth weight and still births were common in preeclampsia.

CONCLUSION:

Hypertension in pregnancy remains an important cause of foetal/maternal morbidity and mortality. Emergency obstetric care plays an important role in early identification and management of Intrapartum complications. Information, education and communication related to maternal and perinatal health are also vital for generating awareness of regular antenatal care and overall birth preparedness.

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